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About AQUACROSS

Knowledge, Assessment, and Management for AQUAtic Biodiversity and Ecosystem Services aCROSS EU policies (AQUACROSS) aims to support EU efforts to protect aquatic biodiversity and ensure the provision of aquatic ecosystem services. Funded by Europe’s Horizon 2020 research programme, AQUACROSS seeks to advance knowledge and application of ecosystem-based management (EBM) for aquatic ecosystems to support the timely achievement of the EU 2020 Biodiversity Strategy targets.

Aquatic ecosystems are rich in biodiversity and home to a diverse array of species and habitats, providing numerous economic and societal benefits to Europe. Many of these valuable ecosystems are at risk of being irreversibly damaged by human activities and pressures, including pollution, contamination, invasive species, overfishing and climate change. These pressures threaten the sustainability of these ecosystems, their provision of ecosystem services and ultimately human well-being.

AQUACROSS responds to pressing societal and economic needs, tackling policy challenges from an integrated perspective and adding value to the use of available knowledge. Through advancing science and knowledge; connecting science, policy and business; and supporting the achievement of EU and international biodiversity targets, AQUACROSS aims to improve ecosystem-based management of aquatic ecosystems across Europe.

The project consortium is made up of sixteen partners from across Europe and led by Ecologic Institute in Berlin, Germany.

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1 Introduction

This document provides a basic manual on how to use the AQUACROSS Information Platform (IP), available at

http://dataportal.aquacross.eu

The platform is developed using CKAN software (http://ckan.org/), a powerful data management system, providing a reliable entry point for all data and metadata collected and generated by the AQUACROSS project.

This manual is based on the existing user documentation from CKAN at: http://docs.ckan.org/en/latest/user-guide.html

This is version 2 of the manual, released in May 2018.

1.1 Terminology

DATASET

The data publishing unit in the AQUACROSS IP is called “dataset”. A dataset is a parcel of data – for example, it could be a description of the biodiversity of a specific river catchment. A dataset consists of “metadata” (see below) and a number of “resources”, which hold the data itself. Data formats can include CSV or Excel spreadsheets, XML file, PDF documents, image files, linked data in RDF format etc. A dataset can contain any number of resources. Regarding the example mentioned above, it could be an Excel table with species and their occurrence coordinates, or maps illustrating the distribution of the species and pictures showing the species.

METADATA

“Metadata” are loosely defined as “data about data”. Metadata document and describe all aspects of a specific dataset (i.e. the who, why, what, when and where) that allow understanding of the physical format, content and context of the data, as well as how to acquire, use and cite the data. Within the AQUACROSS IP the metadata describe the dataset, including the title and publisher, publishing date, data format, license of availability etc. (for details see AQUACROSS GIS guidelines).
ORGANIZATION

The owner of a dataset is called “organization”. For the AQUACROSS IP the organizations are defined as data publishing institutions. Each organization can have its own workflow and authorisations, allowing it to manage its own publishing process. All AQUACROSS partners are seen as organizations.

GROUPS

Within the AQUACROSS IP “groups” can be used to create and manage collections of datasets. Currently eight groups are available corresponding to the project's case studies. They represent a simple way to help people search and find published datasets for case study related research. For each case study a “group admin” exists, who is responsible to assign registered users to the respective case study. Users then can assign datasets to the group they are member of (see chapter 4.4.1).

ADMINISTRATOR

Each organization has an administrator who is responsible for adding individual users within this organization and for allocating different authorisation rights depending on the roles of the users.

USER

A user (as part of an organization) can create a dataset owned by that organization. In the default setup, this dataset is initially private, and visible only to other users of the same organization. When the dataset is ready for publication, it can be published by pressing a button.
2 Short Guides

Figure 1. Short guide “Registration roles and rights”.

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Figure 2. Short guide “Adding datasets”.

AQUACROSS QC unit

dataset marked "private" by default

quality control

dataset released "public"
Figure 3. Short guide “Finding datasets”.
3 Registration and user management

3.1 Registering to the AQUACROSS IP and login

Users of the AQUACROSS IP can search for and find datasets without any restrictions. For all publishing functions (e.g. create a dataset, edit a dataset etc.) a login with appropriate permissions is needed. Every institution – not only AQUACROSS project partners – can apply for registration.

To create a user, use the “Register” link at the top right of any page and enter the following information: username (only letters, numbers, – and _ allowed), full name, e-mail address (will not be visible to other users) and password. After registration you will be logged in automatically, but you might need specific authorisation rights set by the administrator of your organization.

Figure 4. Registration page.

For a new session you can login by clicking on “Log in” at the top right of the AQUACROSS IP page.
3.2 Managing the user profile

3.2.1 Settings

The AQUACROSS IP provides features to personalise and manage the user profile.

At the top of any page, select the “settings” symbol (gearwheel) and the AQUACROSS IP will display your personal settings. You can change the information that the IP holds about you, including what content other users are allowed to see about you. You can change: your username, full name, e-mail address, your profile text (an optional short paragraph about yourself) and your password. To save the changes you require press the “Update Profile” button.

Figure 5. User’s details page.

3.2.2 Dashboard

At the top of any page, select the dashboard symbol (next to your name) and the AQUACROSS IP will display your dashboard, which includes the tabs “News feed”, “My Datasets”, “My Organizations” and “My Groups”.

• The tab “News feed” shows changes to datasets that you follow, and any changed or new datasets of organizations/users you follow. The number right of the dashboard symbol shows the number of new notifications in your news feed since you last looked at it.
• The tab “My datasets” allows to directly access and edit your datasets.
• The tab “My Organizations” allows to see the information about the organization you belong to.
• The tab “My Groups” allows to see the information about the groups (i.e. case studies) you belong to.

Figure 6. Dashboard page, tab “News feed”.

FOLLOWING AN ORGANIZATION

If an organization is of special interest for you, you can choose to be notified, if the organization adds new or modifies existing datasets by using the “Follow” button on the organization’s page. You must have a user account and be logged in to use this feature.

FOLLOWING A DATASET

If a dataset is of special interest for you, you can choose to be notified, if gets modified by using the “Follow” button on the dataset page. You must have a user account and be logged in to use this feature.

FOLLOWING A GROUP

If a group (case study) is of special interest for you, you can choose to be notified, if some of its datasets get modified by using the “Follow” button on the dataset page. You must have a user account and be logged in to use this feature.
3.3 Managing an organization, its members and datasets – organization administrator

In general, each dataset is owned by one organization. Each organization includes users, who can modify their datasets and create new ones. Each organization in the AQUACROSS IP will receive specific authorisation and rights through the AQUACROSS IP administrator. The person registering the organization will get the permission to be the organization’s administrator who is responsible for managing the users within an organization. This “organization administrator” can assign different levels of access to members (users).

Each organization has a dedicated page, where users can find information about the organization (tab “About”), search within its datasets (tab “Datasets”) and look at the latest activities of that organization (tab “Activity Stream”).

As an organization administrator you can edit this the organization’s page. Click on the “Manage” button on the top right and the AQUACROSS IP displays the organization’s administration page. This page has three tabs:

- **Edit**: Here you can edit the information about the organization (title, description and image). After editing the organization’s details click on the “Update Organization” button to save the changes.
- **Datasets**: Here you can manage the datasets of the organization. You can add new datasets or click on existing ones to edit them. Additionally, you can change the publication status of your datasets: mark the datasets you want to change and then click on the “Make public” button to make them visible to the public or the “Make private” button to make them visible to users of the same organization only. You can also delete datasets by clicking the “Delete” button.
- **Members**: Here you can add, remove and change access roles for different users within the organization (see below).

To leave the editing mode click on the “View” button (eye).
Figure 7. Organization’s page in the editing mode, tab “Edit”.

Figure 8. Organization’s page in the editing mode, tab “Datasets”.

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3.3.1 Adding users to an organization and assigning rights

To add a new user to an organization you have to be the administrator of that organization. On the organization’s page choose the tab “Members” and press the “Add Member” button. Now you can either choose an existing user from the selection list or add a new one. Members of an organization can be assigned one of the following three roles:

- Member: can see the organization’s private datasets.
- Editor: can edit and publish datasets.
- Admin: can add, remove and change roles for organization members.

To change the role of a member at a later stage, go to the organization’s page choose the tab “Members”, press the “edit” symbol (open-end spanner) and change the user’s permissions. To remove a user from an organization, click on the “delete” symbol (white x on red ground).
3.4 Managing a group – group administrator

For each case study in AQUACROSS a group admin was assigned. This group admin can manage members, datasets and edit the “About-section” or modify the image of the case study if necessary. Please contact the case study leader in case you do not know the case study admin.

3.4.1 Adding users to a group and assigning rights

To add a new user to an group you have to be the administrator of that group. On the group’s page choose the tab “Members” and press the “Add Member” button. Now you can either choose an existing user from the selection list or add a new one. Members of an group can be assigned the same roles as defined above.
4 Features for publishers

You need to be a registered member of an organization of the AQUACROSS IP in order to add and/or edit datasets.

4.1 Adding a new dataset

You can access the screen “Create dataset” of the AQUACROSS IP in two ways:

- Select “Datasets” at the top of any page. From this, above the search box, select the “Add Dataset” button.
- Select “Organizations” at the top of any page. Then select the page for the organization you and the dataset belong to. Finally select the “Add Dataset” button above the search box.

For each new dataset you need to enter specific information. During the metadata entry the user can select if a dataset should be private or public (see below).

4.2 Metadata editor

Before you can actually upload any resources, you need to provide “metadata” to your dataset.

NOTE: Metadata are loosely defined as “data about data”. More specifically, metadata should document and describe all aspects of a specific dataset (i.e. the who, why, what, when and where) that would allow understanding of the physical format, content and context of the data, as well as how to acquire, use and cite the data.

This can be done in two ways:

- Enter information into the fields of the “Create Dataset” page.
- Upload your metadata from an external resource. This is only possible for an administrator of an organization.

The fields you are asked to fill correspond to the AQUACROSS GIS Guidelines and can be seen in the Annex to this document.
In the section “AQUACROSS contact point” email and organisation of the person responsible for uploading the dataset within the AQUACROSS project have to be entered.

In the section “Responsible organizations for this dataset” you have to name the organization responsible for the dataset including an email-address and then define its role.

Roles are defined according to ISO 19115 and INSPIRE:

- author: party who authored the resource

NOTE: The field “Visibility” will be set to “Private” and the field “Organisation” to “QC” by default. This is part of the quality control and quality assurance procedure of the IP. All datasets will be checked by the AQUACROSS QC team before they will be visible online (see chapter 6.1).
• custodian: party that accepts accountability and responsibility for the data and ensures appropriate care and maintenance of the resource
• distributor: party who distributes the resource
• originator: party who created the resource
• owner: party that owns the resource
• point of contact: party who can be contacted for acquiring knowledge about or acquisition of the resource
• principal investigator: key party responsible for gathering information and conducting research
• processor: party who has processed the data in a manner such that the resource has been modified
• publisher: party who published the resource
• resource provider: party that supplies the resource
• user: party who uses the resource (note, if you choose this role, please also select a second (non-user) role for this dataset; see below).

NOTE: Note that there is potentially considerable overlap between the roles defined above. For the organization responsible for the dataset, please try to choose the role that seems most specific and appropriate, e.g. the “author” of a dataset is likely to also be “originator” and “owner”, but we recommend entering “author” which is more specific.
By default the role is set to “point of contact”. Please enter at least the name and email of the person who could be addressed in case of questions regarding the dataset. If possible please also define other roles for this dataset by using the “+” button on the right. If there are more than one organizations responsible for the dataset also use the “+” button.

In the section “Title” you can also add the title of your dataset in its original language.
The section “Identification” includes a short abstract, the creation and publication dates as well as a lineage statement (i.e. a statement on process history and/or overall

NOTE: All the information produced within AQUACROSS is released under the open data licenses “Creative Commons Zero License (CC0)” or “Creative Commons Attribution License (CC BY)” v. 4.0.
Details can be found here: http://dataportal.aquacross.eu/license
quality of the data). Additionally, related publications can be entered. The last fields deal with possible limitations on public use and the Creative Commons license.

If you are not sure about the licence of the dataset you are uploading, please check the original licence assigned at the source. If a license has not been specified for the external data you are uploading or the option does not appear in the list, please choose the “empty” option. Note that a CC license should be assigned to any original data as mentioned in the box above.

Figure 12. Create dataset page, metadata fields, part 2.

Figure 13. Create dataset page, metadata fields, part 3.
In the section “Keywords” you can define free keywords and enter a vocabulary title if used.

In the section “Classification” you have to choose a topic category and theme from INSPIRE.

In the section “Spatial information” spatial datasets should be characterised. If the dataset is not a spatial one the “Resource type” should remain empty.

Figure 14. Create dataset page, metadata fields, part 3.

In the section “Spatial extents” your dataset can easily be allocated to one of the AQUACROSS case studies. For the case studies the bounding coordinates will be filled automatically. If your dataset does not relate to a case study, just select “Custom” to define a bounding box on your own. Please use a “.” as decimal delimiter.

Once you have filled all the metadata fields select the “Next: Add Data” button. This will bring you to the actual upload page (see below).

4.3 Upload of data

On the “Add data” page you now can add one or more “resources” which contain the data for this dataset.

The following steps are necessary:
Choose a file from your local directory by pressing the “Upload” button or link to your data resource by clicking the “Link” button.

Add a name for this resource; different resources in the dataset should have different names.

Define the format of the resource, e.g. CSV, XLS, JSON, PDF, etc.; this field can also be left blank as it will be guessed automatically.

If you wish to add more resources (files or links) to this dataset, select the “Save & add another” button. Otherwise choose the “Finish” button to complete the upload process.

Figure 15. Create dataset page, upload of resources section.

Figure 16. Overview page of a dataset with entered metadata.
4.3.1 Specific requirements for uploading data

This section contains a few specific recommendations and requirements for uploading data on the AQUACROSS IP:

- CSV files are preferred to Excel.
- If you want to upload an Excel file, make sure that the data are in the first tab (so that they can correctly be previewed). Be aware that there seems to be a line limitation.
- Shapefiles might only be uploaded if packed into a zip-file.

If you encounter other problems, please send your experiences via the IP contact page at http://dataportal.aquacross.eu/contact.

4.4 Managing a dataset

4.4.1 Assigning a dataset to an AQUACROSS case study

In order to easily find datasets related to the AQUACROSS case studies, they need to be assigned to a case study “group”. This needs to be done by the person providing the dataset or by a person connected to the case study (who has registered on the Information Platform).

To do so, click on the dataset that you want to assign to a group. Then choose the tab “Groups”, select the case study from the dropdown list and click “Add to group”.

If you cannot choose anything from the groups tab, it is possible that you are not assigned to a case study. In this case, contact the case study admin.

Figure 17. Dataset page, tab “Groups”.
4.4.2 Editing metadata

After quality control is performed by the AQUACROSS QC team, you can edit datasets you have created, or any dataset owned by any organization that you are a member of. If the dataset is public, you should be able to find it by typing the title, or some relevant words from the description, into the search box on any page. Alternatively, go to the “Datasets” page in the menu if the dataset was made public or go to the organization you belong to, if the dataset was marked private.

Click on the dataset you want to edit and then on the “Manage” button (open-end spanner). The AQUACROSS IP displays the “Edit metadata” screen on the first tab. You can edit any of the metadata fields and also change the visibility (Private/Public). When you have finished, select the “Update dataset” button to save your changes.

Figure 18. Edit dataset page, tab “Edit metadata”.

4.4.3 Adding, deleting and editing resources

Go to the “Datasets” page, select a dataset and click the “Manage” button (see above). Select the second tab “Resources”.

Figure 18. Edit dataset page, tab “Edit metadata”.

4.4.3 Adding, deleting and editing resources

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Figure 18. Edit dataset page, tab “Edit metadata”.

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Figure 18. Edit dataset page, tab “Edit metadata”.

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Figure 18. Edit dataset page, tab “Edit metadata”.

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Figure 18. Edit dataset page, tab “Edit metadata”.

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Figure 18. Edit dataset page, tab “Edit metadata”.

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Figure 18. Edit dataset page, tab “Edit metadata”.

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Figure 18. Edit dataset page, tab “Edit metadata”.

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Figure 18. Edit dataset page, tab “Edit metadata”.

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Figure 18. Edit dataset page, tab “Edit metadata”.

4.4.3 Adding, deleting and editing resources

Go to the “Datasets” page, select a dataset and click the “Manage” button (see above). Select the second tab “Resources”.

Figure 18. Edit dataset page, tab “Edit metadata”.

4.4.3 Adding, deleting and editing resources

Go to the “Datasets” page, select a dataset and click the “Manage” button (see above). Select the second tab “Resources”.

Figure 18. Edit dataset page, tab “Edit metadata”.
You can now choose “Add new resource” to add new resources to your dataset. Once you have filled the information on the “New resource” tab, press the “Add” button to add the resource to the dataset.

To reorder your resources within as dataset, choose the “Reorder resources” button and change the order of the resources according to your needs.
If you want to edit or delete an existing resource click on the resource. In the tab “Edit resource” you can edit the information about the resource or change the linked or uploaded file (see above). When you have finished editing, select the “Update Resource” button to save your changes. Alternatively, to delete the resource, select the “Delete” button. The AQUACROSS IP then displays a confirmation dialog box. To complete deletion of the dataset, select “Confirm”.

NOTE: The “Deleted” dataset is not completely deleted. It is hidden, so it does not show up in any searches, etc. However, by visiting the URL for the dataset’s page, it can still be seen (by users with appropriate authorization), and “undeleted” if necessary. If it is important to completely delete the dataset, contact the AQUACROSS IP administrator via the provided contact form.

When you have finished all your editing, click on the “View dataset” button to return to the dataset’s overview page.
5  Finding and exploring datasets

5.1  Searching for datasets

5.1.1  Searching the site

To find datasets in the AQUACROSS IP, type any combination of search words (e.g. “water”, “assessment”, etc.) in the search box on any page. The AQUACROSS IP will then return all corresponding search results as a list.

Figure 21. Opening screen of the AQUACROSS IP with the “Search data” field.

On the result page of your search you can do the following things:

- Change the order of the found datasets according to relevance, name or modification date by selecting “Order by”.
- Restrict the search to datasets with particular tags, data formats, etc. using the filters in the left-hand column. You can combine filters, selectively adding and removing them, and modify and repeat the search with existing filters still in place.
- Repeat the search, altering some terms.
Additionally, if datasets are tagged by geographical area, it is also possible to search and filter for datasets by selecting an area on a map.

On the “Datasets” page click on the edit button (pencil) on the map in the top left corner. You can zoom in and zoom out using the “+/-” buttons and move the map with the little hand symbol. Then draw a square over the area you are interested in and press the “Apply” button. You will get a list of fitting results.
5.1.3 Searching within an organization

If you want to look for data owned by a particular organization, you can search within that organization’s site in the AQUACROSS IP.

Select the “Organizations” link at the top of any page, then select the organization you are interested in and you will be directed to the organization’s site. Type your search query in the main search box on the page. The AQUACROSS IP will return search results as described above but restricted to datasets from the specific organization.

If you want to get notified about the organization’s activities (adding new or modifying existing datasets) click on the “Follow” button on the left side of the organization’s page. Note that you need to be a registered user to follow an organization.

![Image of search results on the organization's page, also showing the “Follow” button to follow an organization.](image)

5.2 Exploring datasets

Once you have found a dataset you are interested in and selected it, the AQUACROSS IP will display the dataset page. On the overview page of a dataset you will find three tabs:

- “Dataset”: Shows the data and resources belonging to this dataset as well as additional info (metadata).
- “Groups”: Shows the groups this dataset belongs to.
“Activity stream”: Shows the history of recent changes to the dataset.

Figure 25. Dataset overview page, also showing the “Follow” button and the different options to explore a dataset.

On the “Dataset” tab you will find all data and resources. The “Explore” button right of the resource offers the following options:

- **Preview**: Shows a preview of the resource including additional information (like e.g. the licence). CSV and XLS spreadsheets are previewed in a grid view, with map (after definition of the coordinate data fields in the file) and graph views also available if the data is suitable. The resource page will also preview resources if they are common image types, PDF, or HTML.
- **Download**: Downloads the file.
- **Edit**: Allows editing or deleting of the resource, if you are the owner of it.

If you want to get notified about activities regarding a specific dataset (e.g. adding or editing of resources) click on the “Follow” button on the left side of the dataset’s page. Note that you need to be a registered user to follow a dataset.
Figure 26. Dataset explore page, preview of Excel data.

Figure 27. Dataset explore page, preview of occurrence data in a map.
5.3 Information on organizations

Each organization has a dedicated page, where users can find information about the organization (tab “About”), search within its datasets (tab “Datasets”) and look at the latest activities of the organization (tab “Activity Stream”).

You can follow this organization by clicking the “Follow” button. Note that you need to be a registered user to follow an organization.
5.4 Information on groups

In the AQUACROSS IP you will find different groups related to the case studies.

Each group has a dedicated page, where users can find information about the group (tab “About”), search within its datasets (tab “Datasets”) and look at the latest activities of the group (tab “Activity Stream”).

You can follow this group by clicking the “Follow” button. Note that you need to be a registered user to follow a group.

To assign a dataset to a group see chapter 4.4.1.

Figure 30. Groups page showing the case study groups.
6 Additional useful information

6.1 Quality control and quality assurance

All datasets that are uploaded on the AQUACROSS IP will undergo quality control and quality assurance through the AQUACROSS QC team before they will be visible online. The process is started as soon as a dataset is uploaded. The AQUACROSS QC team will quality control the dataset in terms of completeness of metadata. If there are issues to solve, the data provider will be contacted per email. Otherwise the dataset will be made available publicly. The QC process is organised per case study and in case of external datasets per thematic areas (i.e. freshwater, coastal, marine).

Operational support can be obtained through the IP contact page at http://dataportal.aquacross.eu/contact.

6.2 AQUACROSS IP architecture

As illustrated below, AQUACROSS deploys the CKAN architecture taking the INSPIRE recommendations and standards into account. AQUACROSS currently deploys CKAN version 2.5.7. The architecture provides a framework to extend and add plugins which add or extend specific functionalities.

Figure 31. AQUACROSS information technology architecture. The diagram shows the different libraries and plugins used by the project for the back-end and front-end levels.
Further information and support can be obtained through the IP contact page at http://dataportal.aquacross.eu/contact.

6.3 Interoperability

The AQUACROSS IP offers interoperability with several other open source tools, e.g. R or QGIS.

In terms of R the CKAN API is necessary to interact with the AQUACROSS IP via ckanr. Each user needs her/his own API private key, which can be found in the user profile. Via R it is currently possible to upload data, download data, create groups or survey the users' activity.

For QGIS a CKAN plugin is required.

Further support on this can be obtained through the IP contact page at http://dataportal.aquacross.eu/contact.
## Annex

Metadata fields and explanations according to the AQUACROSS GIS guidelines “AQUACROSS Geographic Information Systems (GIS) Guidelines, Version 1.0”.

### Table 1. Discovery Metadata template.

<table>
<thead>
<tr>
<th>Identification Info</th>
<th>Instructions</th>
<th>Example</th>
</tr>
</thead>
<tbody>
<tr>
<td>Metadata point of contact: Organisation</td>
<td>Add the description of the organisation responsible for the creation and maintenance of the metadata.</td>
<td>IOC/UNESCO</td>
</tr>
<tr>
<td>Metadata point of contact: E-mail</td>
<td>Add the e-mail of the contact point</td>
<td><a href="mailto:a.barbosa@unesco.org">a.barbosa@unesco.org</a></td>
</tr>
<tr>
<td>Metadata date</td>
<td>Add date which specifies when the metadata record was created or updated.</td>
<td>05/12/2015</td>
</tr>
<tr>
<td>Metadata language</td>
<td>This is the language in which the metadata elements are expressed.</td>
<td>ENG</td>
</tr>
<tr>
<td><strong>Identification</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Resource title</td>
<td>Add the name of the data/indicator and the time coverage (e.g.: INDICATOR_2010 and INDICATOR 2010–2015 for time series)</td>
<td>Large_Marine_Ecosystems_2010.shp</td>
</tr>
<tr>
<td>Resource locator</td>
<td>Please add the link to the link(s) to the data and/or the link to additional information about the resource.</td>
<td><a href="http://aquacross.eu/cause-studies">http://aquacross.eu/cause-studies</a></td>
</tr>
<tr>
<td>Resource abstract</td>
<td>Add a brief narrative summary of the content of the data. Free text, concise, pertinent.</td>
<td>Large Marine Ecosystems (LMEs) are regions of ocean encompassing coastal areas from river basins and estuaries to the seaward boundaries of continental shelves and the outer margins of the major current systems. These areas of the ocean are characterized nb you can add here the measurement units (e.g. km, tons, US$). For raster datasets, add cell size in geographic units</td>
</tr>
<tr>
<td><strong>IDENTIFICATION INFO</strong></td>
<td><strong>Instructions</strong></td>
<td><strong>Example</strong></td>
</tr>
<tr>
<td>-------------------------</td>
<td>-----------------</td>
<td>-------------</td>
</tr>
<tr>
<td><strong>Metadata on metadata</strong></td>
<td></td>
<td>by distinct bathymetry, hydrography, productivity and trophic interaction.</td>
</tr>
<tr>
<td><strong>Resource type</strong></td>
<td>Select the following options: - dataset for spatial datasets; - series for spatial dataset series; - service for spatial data services</td>
<td>dataset</td>
</tr>
<tr>
<td><strong>Resource unique identifier</strong></td>
<td>A value uniquely identifying the resource. The value domain of this metadata element is a mandatory character string code, generally assigned by the data owner, and a character string namespace uniquely identifying the context of the identifier code (for example, the data owner).</td>
<td>e24425e1-b073-11e1-9105-0017085a97ab</td>
</tr>
<tr>
<td><strong>Classification of data and services</strong></td>
<td>Please check here the topic categories available for spatial data resources. Biota, Boundaries, Climatology, Meteorology, Atmosphere, Economy, Elevation, Environment, Farming, Geoscientific information, Health, Imagery base maps earth cover, Inland waters, Intelligence military, Oceans, Planning cadastre, Society, Structure, Transportation, Utilities communication</td>
<td>Oceans/ Boundaries</td>
</tr>
<tr>
<td><strong>Topic category</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Keyword</strong></td>
<td>Keyword from INSPIRE Data themes. See INSPIRE themes at: <a href="http://inspire.ec.europa.eu/index.cfm/pageid/2/list/7">http://inspire.ec.europa.eu/index.cfm/pageid/2/list/7</a></td>
<td>Administrative units; Bio-geographical regions; Habitats and biotopes;</td>
</tr>
<tr>
<td><strong>Keyword value:</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Free Keywords:</strong></td>
<td>Free text (use a comma to separate keywords)</td>
<td>WP 4, Boundaries, marine, fish, fishery, ocean, seas, coastal, water systems</td>
</tr>
<tr>
<td><strong>IDENTIFICATION INFO</strong></td>
<td><strong>Instructions</strong></td>
<td><strong>Example</strong></td>
</tr>
<tr>
<td>--------------------------</td>
<td>------------------</td>
<td>-------------</td>
</tr>
<tr>
<td>Metadata on metadata</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Originating controlled vocabulary: Title</strong></td>
<td>If the keyword value originates from a controlled vocabulary (thesaurus, ontology), for example GEMET, the citation of the originating controlled vocabulary shall be provided. This citation shall include at least the title and a reference date (date of publication, date of last revision or of creation) of the originating controlled vocabulary.</td>
<td>GEMET – INSPIRE themes, version 1.0</td>
</tr>
<tr>
<td><strong>Originating controlled vocabulary: Reference date</strong></td>
<td>Add the a reference date (date of publication, date of last revision or of creation) of the originating controlled vocabulary.</td>
<td>01/06/2008</td>
</tr>
<tr>
<td><strong>Originating controlled vocabulary: Date type</strong></td>
<td>Select one of the three options: - Date of creation; - Date of revision; - Date of publication;</td>
<td>Publication</td>
</tr>
</tbody>
</table>

**Geographic extent**

| **Geographic Bounding Box (ETRS89)** | Add the extent of the resource in the geographic space, given as a bounding box. | Please add the extent of your case study in decimal degrees: North Bound Latitude East Bound Longitude South Bound Latitude West Bound Longitude |

**Temporal Extent (Add option A or B)**

| **A) Individual date:** | Add the individual date of the temporal extent of the data | 01/01/2002 |
| **B) Interval of dates expressed through the starting date and end date of the interval.** | Add the begin date: | 01/01/2002 |
| | Add the end date: | 01/01/2010 |

**Quality and validity**

<p>| <strong>Lineage (optional)</strong> | This is a statement on process history and/or overall quality of the spatial data set. Where appropriate it may include a statement whether the data set has been validated or quality assured, whether it is the official version (if multiple versions exist), and whether it has legal validity. |             |</p>
<table>
<thead>
<tr>
<th><strong>IDENTIFICATION INFO</strong></th>
<th><strong>Instructions</strong></th>
<th><strong>Example</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Metadata on metadata</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Distribution</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Data format</strong></td>
<td>Choose an item: Tabular data, Spatial Layer (shapefile, raster), OGC WMS, WCS or WFS, GEOTIFF</td>
<td>Shapefile</td>
</tr>
<tr>
<td><strong>Spatial representation type</strong></td>
<td>Choose an item</td>
<td>Charts, table, map, document, etc.</td>
</tr>
<tr>
<td><strong>Conditions applying to access and use</strong></td>
<td>Add a predefined license from Creative Commons.</td>
<td>CC0 1.0 Universal</td>
</tr>
<tr>
<td><strong>Limitations on public use:</strong></td>
<td>Provide information on the limitations on public use and the reasons for them. If there are no limitations on public access, this metadata element shall indicate that fact.</td>
<td>No limitations</td>
</tr>
<tr>
<td><strong>Responsible party (add more entries if necessary)</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Responsible Party</strong></td>
<td>This is the description of the organisation responsible for the establishment, management, maintenance and distribution of the resource. Add the name of your institution.</td>
<td>National Oceanic and Atmospheric Administration (NOAA) and National Marine Fisheries Service</td>
</tr>
<tr>
<td><strong>Email</strong></td>
<td>Add a contact e-mail address.</td>
<td><a href="mailto:Kenneth.Sherman@NOAA.gov">Kenneth.Sherman@NOAA.gov</a></td>
</tr>
<tr>
<td><strong>Responsible role party</strong></td>
<td>Add the role of the party: Resource, Provider, Custodian, Owner, User, Distributor, Originator, Point of Contact, Principal Investigator, Processor, Publisher, Author</td>
<td>Owner (owner)</td>
</tr>
</tbody>
</table>

**Metadata on metadata**

- **Data format**: Choose an item: Tabular data, Spatial Layer (shapefile, raster), OGC WMS, WCS or WFS, GEOTIFF.
- **Spatial representation type**: Choose an item
- **Conditions applying to access and use**: Add a predefined license from Creative Commons.
- **Limitations on public use**: Provide information on the limitations on public use and the reasons for them. If there are no limitations on public access, this metadata element shall indicate that fact.
- **Responsible Party**: This is the description of the organisation responsible for the establishment, management, maintenance and distribution of the resource. Add the name of your institution.
- **Email**: Add a contact e-mail address.
- **Responsible role party**: Add the role of the party: Resource, Provider, Custodian, Owner, User, Distributor, Originator, Point of Contact, Principal Investigator, Processor, Publisher, Author.
# AQUACROSS Partners

<table>
<thead>
<tr>
<th>Organization</th>
<th>Country</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ecologic Institute (ECOLOGIC)</td>
<td>Germany</td>
</tr>
<tr>
<td>Leibniz Institute of Freshwater Ecology and Inland Fisheries (FVB-IGB)</td>
<td>Germany</td>
</tr>
<tr>
<td>Intergovernmental Oceanographic Commission of the United Nations Educational, Scientific and Cultural Organization (IOC-UNESCO)</td>
<td>France</td>
</tr>
<tr>
<td>Stichting Dienst Landbouwkundig Onderzoek (IMARES)</td>
<td>Netherlands</td>
</tr>
<tr>
<td>Fundación IMDEA Agua (IMDEA)</td>
<td>Spain</td>
</tr>
<tr>
<td>University of Natural Resources &amp; Life Sciences, Institute of Hydrobiology and Aquatic Ecosystem Management (BOKU)</td>
<td>Austria</td>
</tr>
<tr>
<td>Universidade de Aveiro (UAVR)</td>
<td>Portugal</td>
</tr>
<tr>
<td>ACTeon – Innovation, Policy, Environment (ACTeon)</td>
<td>France</td>
</tr>
<tr>
<td>University of Liverpool (ULIV)</td>
<td>United Kingdom</td>
</tr>
<tr>
<td>Royal Belgian Institute of Natural Sciences (RBINS)</td>
<td>Belgium</td>
</tr>
<tr>
<td>University College Cork, National University of Ireland (UCC)</td>
<td>Ireland</td>
</tr>
<tr>
<td>Stockholm University, Stockholm Resilience Centre (SU-SRC)</td>
<td>Sweden</td>
</tr>
<tr>
<td>Danube Delta National Institute for Research &amp; Development (INCDDD)</td>
<td>Romania</td>
</tr>
<tr>
<td>Eawag – Swiss Federal Institute of Aquatic Science and Technology (EAWAG)</td>
<td>Switzerland</td>
</tr>
<tr>
<td>International Union for Conservation of Nature (IUCN)</td>
<td>Belgium</td>
</tr>
<tr>
<td>BC3 Basque Centre for Climate Change (BC3)</td>
<td>Spain</td>
</tr>
</tbody>
</table>

**Contact**
- Coordinator: Dr. Manuel Lago, Ecologic Institute
- Duration: 1 June 2015 to 30 November 2018
- Website: [http://aquacross.eu/](http://aquacross.eu/)
- Twitter: @AquaBiodiv
- LinkedIn: [www.linkedin.com/groups/AQUACROSS-8355424/about](www.linkedin.com/groups/AQUACROSS-8355424/about)
- ResearchGate: [www.researchgate.net/profile/Aquacross_Project2](www.researchgate.net/profile/Aquacross_Project2)